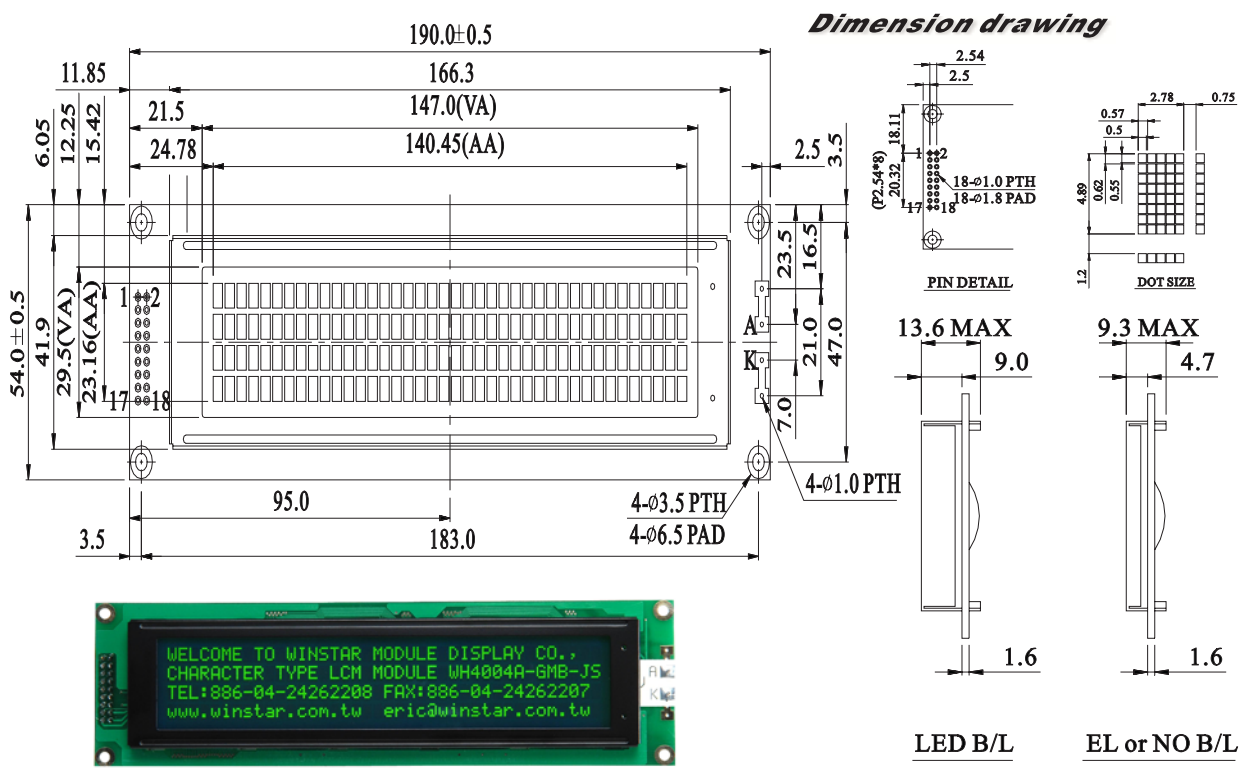
Character 40x4 **WH4004A**



Feature

1. 5x8 dots includes cursor
2. Built-in controller Samsung (KS 0066 or Equivalent)
3. +5V power supply (Also available for +3V)
4. 1/16 duty cycle
5. LED can be driven by pin1,pin2,pin15,pin16 or A and K
6. N.V. optional for +3V power supply

Pin NO.	Symbol	Function
1	DB7	Data bus line
2	DB6	Data bus line
3	DB5	Data bus line
4	DB4	Data bus line
5	DB3	Data bus line
6	DB2	Data bus line
7	DB1	Data bus line
8	DB0	Data bus line
9	E1	H→L Enable signal IC1
10	R/$\overline{W}$	H/L Read/write
11	RS	Register select
12	Vo	Contrast Adjustment
13	Vss	GND
14	Vdd	+5V
15	E2	H→L Enable signal IC2
16	NC/Vee	NC/Negative Voltage output
17	A	
18	K	GND

Mechanical Data

Item	Standard Value	Unit
Module Dimension	190.0x54.0	mm
Viewing Area	147.0x29.5	mm
Mounting hole	183.0x47.0	mm
Character Size	2.78x4.89	mm

Absolute Maximum Rating

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	-0.3	---	7.0	V
Input Voltage	VI	-0.3	---	VDD	V

Note : VSS=0 Volt, VDD=5.0 Volt.

Electronical Characteristics

Item	Symbol	Condition	Standard Value			Unit
			min.	typ.	max.	
Input Voltage	VDD	VDD=+5V	4.7	5.0	5.3	V
		VDD=+3V	2.7	3.0	5.3	V
Supply Current	IDD	VDD=5V	---	2.4	3.0	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	-20°C	4.9	5.1	5.5	V
		0°C	4.5	4.8	5.1	
		25°C	4.1	4.5	4.7	
		50°C	3.8	4.2	4.4	
		70°C	3.5	3.9	4.1	
LED Forward Voltage	VF	25°C	---	4.2	4.6	V
LED Forward Current	IF	25°C	---	600	1200	mA
EL Power Supply Current	IEL	Vel=110VAC;400Hz	---	---	5.0	mA

Display Character Address Code :

Display position

	1	2	3	4	5	6	7	8	9	10	11	12	---	---	---	40	
DD RAM Address	00	01														27	Line 1
DD RAM Address	40	41														67	Line 2
DD RAM Address	00	01														27	Line 3
DD RAM Address	40	41														67	Line 4

Character type